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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,991	01/11/2000	David Cushing	2566-105	5026

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EXAMINER

VINCENT, DAVID ROBERT

ART UNIT PAPER NUMBER

2129

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*ku*

## Office Action Summary

Application No.

09/480,991

Applicant(s)

CUSHING, DAVID

Examiner

David R. Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

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***Response to Arguments***

1. The Final Rejection has been withdrawn.
2. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection. Although the Applicant's arguments filed 11/15/04 have been fully considered and found to be not persuasive, the examiner felt that in order to respond to the concerns properly, new sections of the applied art would need to be relied on and that a new grounds of rejection would be used.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1) In the claim, the practical application of an algorithm or idea result in a useful, concrete, tangible result, and

2) The claim provides a limitation in the technological arts that enables a useful, concrete, tangible result.

See MPEP Section IV 2(b). Also note In re Waldbaum, 173USPQ 430 (CCPA 1972) which teaches "useful arts" is synonymous with "technological arts". In Musgrave, 167USPQ 280 (CCPA 1970), In re Johnston, 183USPQ 172 (CCPA 1974), and In re Toma, 197USPQ 852 (CCPA 1978), all teach a technological requirement.

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Claims 1-19, and 30-31 are rejected under USC 101 because these claims do not recite the use of technological art. With regards to independent claims 1, 10, 30, and 31, the steps, claim 1 for example,

no technological art is recited in the claims, the steps of receiving orders, allocating shares among orders, and terminating a receiving order could also be done manually without the use of electronic communication medium and is, therefore, directed to a non-statutory subject matter.

Dependent claims are rejected for incorporating the defects from the parent claim by dependency.

#### **Response to Arguments**

Applicant's arguments filed 11/15/04 have been fully considered but they are not persuasive.

Applicant's arguments with regard to State Street are noted but are not persuasive. In State Street, "in the technological arts" was never an issue. The invention in the body of the claim must recite technology. If the invention in the body of the claim is not tied to technological art, environment, or machine, the claim is not statutory. Ex parte Bowman 61USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished).

In re pg. 6 the applicant argues the 101 rejection.

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In response, please identify where in the claims technology such as e.g., computers are being recited. The examiner fails to see any technology in the claims, especially claim 1 where the limitations can be carried out by a human.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by May (US 6,421,653).

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May discloses a method of performing a batch auction comprising the steps of:

receiving during an order acceptance period orders from a plurality of participants, said orders representing a desire to execute a trade regarding a security (col. 16, line 30-col. 17, line 20),

continuously transmitting to said participants information regarding orders as they are received during said order acceptance period (col.7, lines 7-43),

allowing said participants during said order acceptance period to modify previously submitted orders only if the modification meets a predetermined set of conditions (see orders in the queued order window can be edited, col. 43, lines 40-44; active orders, col. 33, lines 39-42; price adjusting, col. 31, lines 16-34; adjusting quantities, col. 36, lines 38-42; active orders and changing orders, col. 37, lines 13-36; canceling orders, col. 38, lines 1-67, especially lines 1-14, and modifying, col. 38, lines 64-66; col. 4, line 63-col. 5, line 10; col. 18, line 18-col. 19, line 7),

prohibiting the receiving of orders after said order acceptance period (col. 4, line 58-col. 5, line 10) it is inherent, in auction systems, to have a predefined bidding period;

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discovering an optimal price at which a maximum number of shares will be executed based on all orders received during said order acceptance period (finding price at which the most volume is traded, **col. 43, lines 50-62**; best prices, col. 35, lines 6-9; col. 37, lines 13-36; 302, Fig.15; col. 37, lines 12-27),

executing a trade of said maximum number of shares at said optimal price (col. 37, line 45-col. 39, line 29); and

wherein said orders include parameters describing a trade, a security identifier, and a quantity of shares (Fig.7).

- allocating said executed maximum number of shares fairly among orders that qualify according to a predetermined allocation procedure (settlement module).

2) The method for conducting a financial batch auction according to claim 1, wherein said orders include parameters describing a trade side, a security identifier, and a quantity of shares (Fig.7).

3) The method for conducting a financial batch auction according to claim 1, wherein said orders have order types selected from the group consisting of unpriced orders, priced orders, and cross orders (620, 672,684).

4) The method for conducting a financial batch auction according to claim 1, wherein the batch auction is conducted

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concurrently with a continuous trading financial market  
(abstract).

5) The method for conducting a financial batch auction according to claim 4, wherein one of said first period or said second period comprises a stoppage of trading on said continuous trading market (col.30, lines 41-col.31, line 15).

6) The method for conducting a financial batch auction according to claim 1, wherein said information transmitted to said qualified recipients comprises an indicated price and a net order imbalance (it is inherent in a financial batch auction to transmit information to qualified recipients for either an indicated price or a net order imbalance)

7) The method for conducting a financial batch auction according to claim 1, further comprising the step of:  
receiving requests to cancel orders and receiving requests to modify orders concurrently with said receiving of said orders (col. 55, lines 45-52).

8) The method for conducting a financial batch auction according to claim 7, wherein said receiving of requests to cancel orders is terminated by a predetermined time before terminating the receipt of orders, and said receiving of orders and said receiving of requests to modify orders are accepted subject to pre-determined conditions (see settlement module 42).



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9) The method for conducting a financial batch auction according to claim 1, wherein during said allocating step, said executed maximum number of shares is distributed pro-rata among orders that qualify (42).

Claims 10-29 are similarly rejected as in Claims 1-9.

30) A method for conducting a security batch auction cycle, said auction cycle having an order acceptance period, a price discovery period, and an order execution period, said method comprising the steps of:

- during a first of two stages of said order acceptance period:

- accepting requests to enter auction orders into an order book, to modify auction orders within the order book, and to cancel auction orders within the order book during a first stage of said order acceptance period; and

- selecting data from said order book, and publishing said selected data to one or more qualified recipients;

- during the second stage of said order acceptance period:

- accepting late requests to enter auction orders into the order book if said late requests to enter meet a first set of criteria;

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- accepting late requests to modify orders within the order book if said late requests to modify meet a second set of criteria; and

- publishing said selected data within said order book to said qualified recipients (516),

- during said price discovery period:

- identifying one or more prices at which the batch auction cycle would produce a maximum number of executed shares, and selecting one of said one or more prices as an optimal price; and

- during said order execution period:

- executing a trade of said maximum number of shares at said optimal price; and

- allocating said executed maximum number of shares among the orders according to a predetermined criterion (settlement module 42).

31) A method of performing an intermediated batch auction of a security, comprising the steps of:

- receiving a plurality of orders from one or more qualified participants, each of said orders identifying a desire to trade shares of the security;

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- providing information to an intermediary regarding said plurality of orders, and accepting orders from said intermediary identifying a desire to trade an excess number of shares (608),

- discovering an optimal price at which a maximum number of said shares identified by said plurality of orders will be executed;

- executing a trade of said maximum number of shares and said excess number of shares at said optimal price; and

- allocating said executed maximum number of shares and said excess number of shares fairly among orders from said qualified participants and said intermediary (42).

Applicant argues that May does not teach a methodology for accepting new or modified orders during an order acceptance period, where selected information regarding orders is transmitted to auction participants during the order acceptance period.

In response, May discloses a methodology for accepting new or modifying orders, allowing said participants during said order acceptance period to modify previously submitted orders only if the modification meets a predetermined set of conditions (see orders in the queued order window can be edited, col. 43, lines 40-44; active orders, col. 33, lines 39-42; price

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adjusting, col. 31, lines 16-34; adjusting quantities, col. 36, lines 38-42; active orders and changing orders, col. 37, lines 13-36; canceling orders, col. 38, lines 1-67, especially lines 1-14, and modifying, col. 38, lines 64-66; col. 4, line 63-col. 5, line 10; col. 18, line 18-col. 19, line 7; or see e.g., step 320; editing queued orders, and during an order acceptance period also in col. 43, lines 40-67).

The applicant argued May does not disclose any process for calculating an optimal price at which a maximum number of shares are traded.

In response May discloses discovering an optimal price at which a maximum number of shares will be executed based on all orders received during said order acceptance period (finding price at which the most volume is traded, col. 43, lines 50-62; best prices, col. 35, lines 6-9; col. 37, lines 13-36; 302, Fig.15; col. 37, lines 12-27).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R. Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Sough can be


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reached on 571 272 6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David R Vincent  
Primary Examiner  
Art Unit 3628

October 3, 2005

  
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